

Appl. No. 10/005,178
Amendment dated October 6, 2004
Reply to Office Action of July 6, 2004

REMARKS

In the July 6, 2004 Office Action, claims 24-33 stand rejected in view of prior art. On the other hand, claims 2-4, 6-14, 16, 17, 19 and 21-23 were allowed. Applicants wish to thank the Examiner for the allowance of these claims and the thorough examination of this application. The previous indication of allowability of claims 24-29 was withdrawn. No other objections or rejections were made in the Office Action.

Status of Claims and Amendments

In response to the July 6, 2004 Office Action, Applicants respectfully traverse the rejection of claims 24-33, as explained below. Reexamination and reconsideration of the pending claims are respectfully requested in view of the following comments.

Interview Summary

On September 22, 2004, the undersigned conducted a personal interview with Primary Examiner Alison K. Pickard, who is in charge of the above-identified patent application. Applicants wish to thank the Examiner for the courteous interview. Basically, claims 24-33 and the rejection of the outstanding Office Action were discussed during the interview. Specifically, the undersigned argued that it would not have been obvious to one of ordinary skill in the art at the time the invention was made to combine the dimensional relationships disclosed in U.S. Patent No. 6,619,668 (Pyre) into the seal of U.S. Patent No. 5,954,343 (Sumida et al.) to result in the claimed invention, as set forth in claims 24-33. More specifically, the undersigned argued that there is no suggestion or motivation in the prior art to make such a combination. Unfortunately, agreement was not reached during the personal interview. However, the Examiner agreed to give further consideration to claims 24-33 and the prior art, upon receiving an Amendment/Response from the undersigned.

Claims Rejections - 35 U.S.C. §103

In paragraphs 2 and 3 of the Office Action, claims 24-33 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,954,343 to Sumida et al. (hereinafter "the Sumida patent") in view of U.S. Patent No. 6,619,668 to Pyre (hereinafter "the Pyre patent"). In response, Applicants respectfully traverse this rejection. In particular, Applicants believe there is no suggestion or motivation in the prior art to combine the

Appl. No. 10/005,178
Amendment dated October 6, 2004
Reply to Office Action of July 6, 2004

references in the manner suggested in the Office Action to result in the unique arrangements of claims 24-33, as explained below.

The Office Action basically indicates that (1) the Sumida patent discloses the basic arrangement as required in claims 24-33, except the unique dimensional relationships; (2) the Pyre patent teaches such dimensional relationships in an S-shaped seal; and (3) "Pyre teaches that this dimensioning improves sealing qualities of the gasket (see col. 1, lines 54-58). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the seal of Sumida with the dimensions (between the sealing surfaces) to improve the sealing characteristics." Applicants do not dispute assertions (1) and (2). However, Applicants respectfully disagree with assertion (3) of the Office Action.

Column 1, lines 54-58 of the Pyre patent, which was referenced in the Office Action, states "The invention seeks to provide a static gasket which presents excellent qualities in terms of mechanical strength, materials compatibility with the fluids and the surrounding materials, and tolerance to severe conditions of use such as vast temperature or pressure changes." This statement makes no mention of the dimensional characteristics of the seal whatsoever. Thus, this statement in the Pyre patent is not a teaching that the dimensional characteristics of the seal in the Pyre patent contribute to improved sealing characteristics, as asserted in the Office Action. Rather, at best, this statement in the Pyre patent appears to indicate that the *invention* (as a whole) provides some desirable characteristics. Accordingly, the alleged motivation for combining the dimensional characteristics of the seal of the Pyre patent into the seal of the Sumida patent, as set forth in the outstanding Office Action, is flawed. Accordingly, withdrawal of this rejection is respectfully requested.

In any event, in determining obviousness, it is well settled in U.S. Patent law that prior art references must be read as a whole and consideration must also be given where the references diverge and teach away from the claimed invention, and teach away from combining the references. Thus, it is improper to pick and choose among individual features or parts of assorted prior art references, unless there is a suggestion or motivation in the references (as a whole) to combine the selected features. In other words, the critical inquiry in determining obviousness is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making a certain combination to result in the claimed invention. Applicants believe that in reading the Sumida patent as a whole and the Pyre patent as a whole, clearly there is no suggestion or motivation to selectively combine the isolated feature of the

Appl. No. 10/005,178
Amendment dated October 6, 2004
Reply to Office Action of July 6, 2004

dimensional characteristics of the Pyre patent into the seal of the Sumida patent, while ignoring other teachings of each these references, as a whole.

In reading the Sumida patent as a whole, clearly there is no suggestion or motivation to change the dimensional characteristics of the seal disclosed therein. *The Sumida patent is directed to an elastic S-seal with turned ends* similar to the present invention, but with a center section that is steeply inclined (i.e. relatively higher profile) relative to the sealing planes (i.e. in an inverted relationship as compared to the present invention).

Similarly, in reading the Pyre patent as a whole, there is no suggestion or motivation to combine the dimensional characteristics of the seal disclosed therein with the seal of the Sumida patent or any other seal. Rather, these dimensional characteristics are provided merely as an example, with no advantages attributed directly thereto. In fact, the Pyre patent states that the invention can be applied to larger seals, and that the ratio $H1/(D2-D1)$ only *should* be close to 0.5. See Column 4, lines 31-50. The Pyre patent, as discussed during the September 22, 2004 Interview, is directed to a shallow, relatively thick, S-seal without turned ends, preferably constructed by punching (i.e. gentle embossing) alone. In other words, the seal of the Pyre patent is very different from the seal of the Sumida patent.

In reading the entire Pyre patent, two areas of importance primarily become apparent, (A) the punching (i.e. gentle embossing) method of manufacture disclosed and claimed in the Pyre patent; and (B) the simple low profile shape of the seal without turned ends (i.e. with rectilinear parallel ends) disclosed and claimed in the Pyre patent. Thus, the gasket of the Pyre patent "presents the advantage of not developing radial contact forces between the gasket and the housing. Under such conditions, it is therefore always easy to extract the gasket after testing." See column 4, lines 26-30.

Conversely, the dimensional relationships disclosed in the Pyre patent are provided as examples throughout. The Pyre patent is silent as to any specific benefit provided by the dimensional characteristics alone. Thus, unless a seal is constructed in accordance with the other teachings of the Pyre patent (i.e. relatively thick *without turned ends*), it is unclear from the Pyre patent if the dimensional characteristic provide any benefit whatsoever. In other words, at best, the dimensional relationships together with the other features disclosed in the Pyre patent (i.e. simplicity, thickness, non-turned ends, precise shape, material, etc.) may contribute to improved sealing characteristics.

Appl. No. 10/005,178
Amendment dated October 6, 2004
Reply to Office Action of July 6, 2004

Furthermore, the punching (i.e. gentle embossing) method provides a simple inexpensive way to make the seal without turned ends. See column 2, line 63 to column 3, line 8. Also, see column 5, lines 18-40. Moreover, the method of manufacturing the seal of the Pyre patent creates the rectilinear, parallel ends that extend perpendicularly relative to the center axis of the gasket. The arrangement of these non-turned ends of the seal in the Pyre patent are also an important part of the invention because this simple structure makes the punching method feasible, and/or simplifies manufacture if constructed by conventional turning techniques. See column 5, lines 56-67. These important features of the Pyre patent as well as other teachings of the Pyre and Sumida patents cannot be ignored in looking at the teachings of the prior art as a whole.

It is well settled in U.S. patent law that the mere fact that the prior art can be modified does *not* make the modification obvious, unless the prior art *suggests* the desirability of the modification. Accordingly, Applicants believe there is no suggestion or motivation to combine these references as suggested in the Office Action, and withdrawal of this rejection is respectfully requested.

Allowable Subject Matter

In paragraph 4 of the Office Action, claims 2-4, 6-14, 16, 17, 19 and 21-23 were allowed. Applicants wish to thank the Examiner for the allowance of these claims and the thorough examination of this application.

Response to Arguments

In paragraph 5, of the Office Action, the Office Action indicates that it is not considered inventive to discover the workable or optimum ranges by routine experimentation, and cites *In re Aller*, 105 USPQ 233, 235 (CCPA 1955). Applicants understand this principle. However, Applicants believe the selective combination of features from the prior art, as set forth in the Office Action, requires more than routine experimentation to obtain an optimum range.

The Office Action selectively replaces only one feature of one seal with the only one feature of another different seal, while ignoring other teachings/features of the different seals. It appears that the Office Action relies on improper hindsight in order to determine which features from the selected prior art references with which to experiment in order to

Appl. No. 10/005,178
Amendment dated October 6, 2004
Reply to Office Action of July 6, 2004

reconstruct the claimed invention, while ignoring other features. In other words, there is no motivation in the prior art for the selective combination of only the dimensional characteristics from the Pyre patent (while ignoring the other more important teachings of the Pyre patent) into the very different seal of the Sumida patent, as explained above.

* * *

In view of the foregoing comments, Applicants respectfully assert that claims 2-4, 6-14, 16, 17, 19 and 21-33 are now in condition for allowance. Reexamination and reconsideration of the pending claims are respectfully requested. If there are any questions regarding this Amendment, please feel free to contact the undersigned.

Respectfully submitted,



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